



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0296; Project Identifier MCAI-2021-01064-E; Amendment 39-22103; AD 2022-13-17]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce plc) Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2021-15-01 for all Rolls-Royce Deutschland Ltd & Co KG (RRD) Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines. AD 2021-15-01 required revisions to the airworthiness limitations section (ALS) of the Rolls-Royce (RR) Trent XWB time limits manual (TLM) and the operator's existing approved aircraft maintenance program (AMP). Since the FAA issued AD 2021-15-01, the manufacturer has revised the TLM life limits and updated mandatory inspection intervals of certain critical rotating parts. This AD requires revisions to the ALS of the RR Trent XWB TLM and the operator's existing approved AMP, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For material incorporated by reference in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu. You may find this material on the EASA website at

<https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0296. For the material identified in this AD that is not incorporated by reference, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; phone: +44 (0)1332 242424; fax: +44 (0)1332 249936; website: <https://www.rolls-royce.com/contact-us.aspx>.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0296; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Sungmo Cho, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7241; email: sungmo.d.cho@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0217, dated September 23, 2021 (EASA AD 2021-0217), to address an unsafe condition for all RRD Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-15-01, Amendment 39-21648 (86 FR 36487, July 12, 2021), (“AD 2021-15-01”). AD 2021-15-01 applied to all RRD Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines. The NPRM published in the *Federal Register* on March 28, 2022 (87 FR 17209). The

NPRM was prompted by the manufacturer revising the TLM to introduce new instructions for repairs to the low-pressure compressor blades and fan blade inspections. In the NPRM, the FAA proposed to require accomplishing the actions specified in EASA AD 2021-0217, except for any differences identified as exceptions in the regulatory text of this AD and except as discussed under “Differences Between this Proposed AD and the EASA AD.” The FAA is issuing this AD to address the unsafe condition on these products. See EASA AD 2021-0217 for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from two commenters. The commenters were Air Line Pilots Association, International (ALPA) and Delta Air Lines, Inc (DAL). The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Clarify Recording Requirement

DAL requested that the FAA revise paragraph (h)(6), Exceptions to EASA AD 2021-0217, of this AD to read as follows: “This AD does not require compliance with paragraph (5), Recording AD Compliance, of EASA AD 2021-0217. This AD also does not require that after revising the AMP, as required by paragraph (3) of EASA AD 2021-0217, that accomplishment of individual actions is recorded for demonstration of AD compliance.” DAL noted that paragraph (5) of EASA AD 2021-0217 states that it is not necessary to record the accomplishment of individual actions in order to demonstrate AD compliance. DAL indicated that the proposed language in paragraph (h)(6) of the NPRM would negate that action, and make the recording of individual actions a requirement for AD compliance.

The FAA disagrees with revising paragraph (h)(6) of this final rule. As stated in this AD, this AD does not require compliance with paragraph (5), Recording AD Compliance, of EASA AD 2021-0217. Additionally, this AD does not mandate that operators not comply with paragraph (5), Recording AD Compliance, of EASA AD 2021-0217. The FAA notes, for purposes of clarification, that this AD only requires

compliance with paragraph (3) of EASA AD 2021-0217, and that paragraph (3) of EASA AD 2021-0217 does not specify recording of individual actions in order to demonstrate AD compliance. The FAA did not change this AD as a result of this comment.

Request to Incorporate by Reference EASA AD 2021-0217

DAL requested that the FAA add paragraph (k), Material Incorporated by Reference, to this final rule and include EASA AD 2021-0217 in that paragraph. DAL noted that using EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs has improved the efficiency of the FAA's AD process and operator's AD process. DAL also noted that one of the efficiencies of incorporating EASA AD 2021-0217 by reference is that the Ref. Publications section would allow for the use of later approved revisions of the TLM.

The FAA notes that EASA AD 2021-0217 was proposed for incorporation by reference under 1 CFR Part 51 in the NPRM, which lists the material to be incorporated by reference in this final rule. Additionally, while not typically included in an NPRM, the "Material Incorporated by Reference" paragraph exists in the final rule published for FAA ADs. The FAA did not change this AD as a result of the comments.

Support for the AD

ALPA expressed support for the AD as written.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed European Union Aviation Safety Agency (EASA) AD 2021-0217, dated September 23, 2021. EASA AD 2021-0217 describes actions for the incorporation of revised life limits and updated mandatory inspection intervals of certain critical rotating parts into the ALS of the RR Trent XWB TLM, as applicable to

each engine model, and the operator's existing approved AMP. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Other Related Service Information

The FAA reviewed Rolls-Royce Airworthiness Limitations (Mandatory parts lives), TRENTXWB-A-05-10-01-00A01-030A-D, Revision 016, dated May 1, 2021, of the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01; Rolls-Royce Airworthiness Limitations (Mandatory Parts Lives), TRENTXWB-B-05-10-01-00A01-030A-D, Revision 003, dated April 19, 2021, of the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01; Rolls-Royce Airworthiness Limitations (Mandatory inspections), TRENTXWB-A-05-20-01-00A01-030A-D, Revision 015, dated May 1, 2021, of the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01; and Rolls-Royce Airworthiness Limitations (Mandatory inspections), TRENTXWB-B-05-20-01-00A01-030A-D, Revision 008, dated April 19, 2021, of the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01. These sections of the TLM specify inspection intervals and life limits, differentiated by engine model, for critical rotating parts.

Costs of Compliance

The FAA estimates that this AD affects 30 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Revise the ALS of the RR Trent XWB TLM and the operator's existing approved AMP	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$2,550

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator.

Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 – AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2021-15-01, Amendment 39-21648 (86 FR 36487, July 12, 2021); and

b. Adding the following new airworthiness directive:

2022-13-17 Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce plc): Amendment 39-22103; Docket No. FAA-2022-0296; Project Identifier MCAI-2021-01064-E.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-15-01, Amendment 39-21648 (86 FR 36487, July 12, 2021).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7200, Engine Turbine/Turboprop.

(e) Unsafe Condition

This AD was prompted by the manufacturer revising the time limits manual (TLM) to incorporate revised life limits and updated mandatory inspection intervals of certain critical rotating parts. The FAA is issuing this AD to prevent the failure of critical rotating parts. The unsafe condition, if not addressed, could result in failure of one or more engines, loss of thrust control, and loss of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified in paragraph (h) of this AD: Perform all required actions within the compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0217, dated September 23, 2021 (EASA AD 2021-0217).

(h) Exceptions to EASA AD 2021-0217

(1) Where EASA AD 2021-0217 defines the AMP as the approved Aircraft Maintenance Programme on the basis of which the operator or the owner ensures the continuing airworthiness of each operated engine, this AD defines the AMP as the existing Aircraft Maintenance Program on the basis of which the operator or the owner ensures the continuing airworthiness of each operated airplane.

(2) Where EASA AD 2021-0217 requires revising the approved aircraft maintenance program (AMP) within 12 months after the effective date of EASA AD 2021-0217, this AD requires revising the existing approved AMP and airworthiness limitations section (ALS) within 120 days after the effective date of this AD.

(3) This AD does not require compliance with paragraph (1), Mandatory Inspections and Replacement of Life Limited Parts, of EASA AD 2021-0217.

(4) This AD does not require compliance with paragraph (2), Corrective Action(s), of EASA AD 2021-0217.

(5) This AD does not require compliance with paragraph (4), Credit, of EASA AD 2021-0217.

(6) This AD does not require compliance with paragraph (5), Recording AD Compliance, of EASA AD 2021-0217.

(7) This AD does not require compliance with the “Remarks” section of EASA AD 2021-0217.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD and email to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Sungmo Cho, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7241; email: sungmo.d.cho@faa.gov.

(2) For service information identified in this AD that is not incorporated by reference, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; phone: +44 (0)1332 242424; fax: +44 (0)1332 249936; website: <https://www.rolls-royce.com/contact-us.aspx>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0217, dated September 23, 2021.

(ii) [Reserved]

(3) For more information about EASA AD 2021-0217, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0296.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on June 17, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-14391 Filed: 7/7/2022 8:45 am; Publication Date: 7/8/2022]